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NORTHERN PLANT NOVELTIES FOR 1936

N. E. Hansen, Department of Horticulture, State College 3 pages

Brookings, South Dakota, February 8, 1936

This department does not conduct a commercial nursery, but propagates and distributes new varieties originated in this department or imported from similar climates of the Old World. Many acres of seedling fruits have been grown since the work was started by the writer in 1895. The improvement in size and quality of each plant generation is greater year by year. Hybridization and selection are the main methods of improvement.

No 1935 spring list was issued. No budded apple and plum trees are ready for spring 1936, because no apple and plum stocks were available here in 1933 and 1934. December 15, 1934, a two-page list "New Plants from the 1934 Expedition" covered the East Siberian tour.

Scions of most of the varieties already offered can be cut at the uniform price of \$1.00 per foot.

TERMS. The money received from the sale of plants makes it possible to do the work on a larger scale than would otherwise be possible. Those who have followed the progress of the work for many years know the importance of ordering promptly, as soon as this list is received, as the supply of plants is limited. Terms are cash with order. No credit except to Government Experiment Stations. Add two percent to the above prices for (State) Retail Sales tax.

# Hardy Apricots are Here

Probably the Greatest Hardy Fruit Introduction in Many Years

√ FEB 1 3 1935 

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V. S. Deparement of Agriculture

Apricots are a highly desirable fruit, either fresh or canned. But the apricots of commerce are mainly for the peach growing regions and are not hardy at the North.

The hardy apricots of the world are in North Manchuria, now called Manchukuo, and in East Siberia.

The following is from my Spring List issued by the Department of Herticulture, State College, Brookings, South Dakota, March 24, 1934:

"Manchu Apricot, Nos. 1-23. Offered for the first time. In my 1924 tour to north Manchuria, home of the old Manchu conquerors of China, I became interested in the apricots native of the region between Harbin, on the Siberian railway, and the Amur River. This section of China comes up like a wedge into eastern Siberia and is cut through by the Siberian railway. The conditions are really those of east Siberia on either side with minimum temperature of about 47 degrees below zero Fahrenheit. I saved seed from many fruits and now have 32 seedlings. All of these are of excellent quality. The size varies more or less and there is no good chance to determine the relative superiority as the seedlings were planted very closely in the row. They are offered herewith for preliminary trial as Manchu Nos. 1-23 inclusive. So far, 23 out of the 32 seedlings have been budded. The trees are a beautiful sight in bloom. The large flowers, white with distinct pink tinge, appear early before the leaves. The fruit is yellow, somewhat smaller than the apricots of commerce, and makes delicious preserves".

The Manchu apricots, Nos. 1-23, bore a heavy crop of good fruit in 1935. This is surprising, considering that 1933 and 1934 were perhaps the two driest and hottest years on record in this region. The trees are flourishing but are planted much too close for their best development.

Besides the 32 seedlings mentioned, several other lots should be included, the total number being about 45. The minimum temperature of their native region is from 47° to 50° below zero Fahrenheit.

In 1935 a careful study was made of these 45 seedlings, and I decided that the best 12 should be given a name, and the remainder held for further study.

It is important that these named varieties should be sent out where they can be placed under orchard conditions with abundant room for full development. The names are all Chinese, and mostly geographical names from the Harbin region.

The great advantage of these apricots is their early season, coming in here ahead of plums so that they find a ready market.

Of the Manchu apricots now under number, the following are now named: Manchu No. 1 is Sing; No. 2 is Ninguta; No. 3 is Chow; No. 4 is Sino; No. 8 is Lalin; No. 11 is Sansin; No. 16 is-Tola; No. 13 is Hulan; No. 19 is Anda; No. 22 is Manchu; No. 23 is Mandarin; No. 39 is Zun.



#### Named Varieties of the Manchu Apricots

- MANCHU apricot. Large yellow fruit; heavy crop. Fresh fruit No. 1 in size and quality. Cooking test: cooks up into pale yellow good quality sauce. Apparently the largest fruit in this lot of seedlings. The name Manchu apricot is now reserved for it.
- MANDARIN apricot. Fruit large, rich yellow color; one of the best in quality, fresh or when cooked.
- CHOW apricot. Tree productive; fruit large, good eating. Cooking test; pale yellow sauce of good quality.
- SING apricot. (Chinese for apricot). Tree productive, fruit large. Cooking test: good rich orange yellow sauce, flavor stronger than some of the others.
- NINGUTA apricot. Fruit large yellow with red blush. Crop very heavy. Season late, first week in August. Fresh fruit very mild, one of the mildest and best.
- TOLA apricot. Large, freestone. Makes excellent quality sauce. 1935 crop very heavy. One of the best. Season early. August, 1935.
- ANDA apricot. Tree productive, freestone of good size. Season late. In cooking, stays firm and does not cook up. One of the very best in quality.
- ZUN apricot. Quality of fruit, nearly excellent. Pit small, round, freestone.
- SINO apricot. Heavy crop, fruit small, on 8 foot crowded tree. Cooking test: excellent flavor.
- <u>LALIN</u> <u>apricot</u>. Fruit large, yellow with red blush. Fresh fruit good quality.

  V Tree, a heavy crop. No cooking test. Season early.
- HULAN apricot. Very heavy crop of large fruit. Season early. Cooking test: makes good flavored sauce.
- SANSIN apricot. Heavy crop of large fruit, fresh fruit of excellent quality, making a rich orange-yellow sauce.
- TERMS. In the spring of 1935 there were no budded trees of the Manchu apricots available, but some scions were distributed. In 1935 all these 12 varieties were budded on native plum stocks and will be ready for shipping the fall of 1936. Price, each tree, One Dollar. Early orders are advised as the supply is limited. Nurserymen and others may order and pay for them now, and have them delivered as a budstick in August 1936, instead of as a tree in November 1936.

For spring 1936, only a few scions are available as the trees were cut closely for budsticks last fall. Price of scions per foot, Three Dollars.

#### Perennial Wheat

It is easy to see that a good perennial wheat would change the entire wheat industry of the world. During my 1934 tour to East Siberia, success was announced with a perennial wheat. I went to Omsk, Siberia, the center of this work. In the March, 1935, "Country Gentleman", appeared my report. The Soviet government has appropriated a million rubles for these experiments.

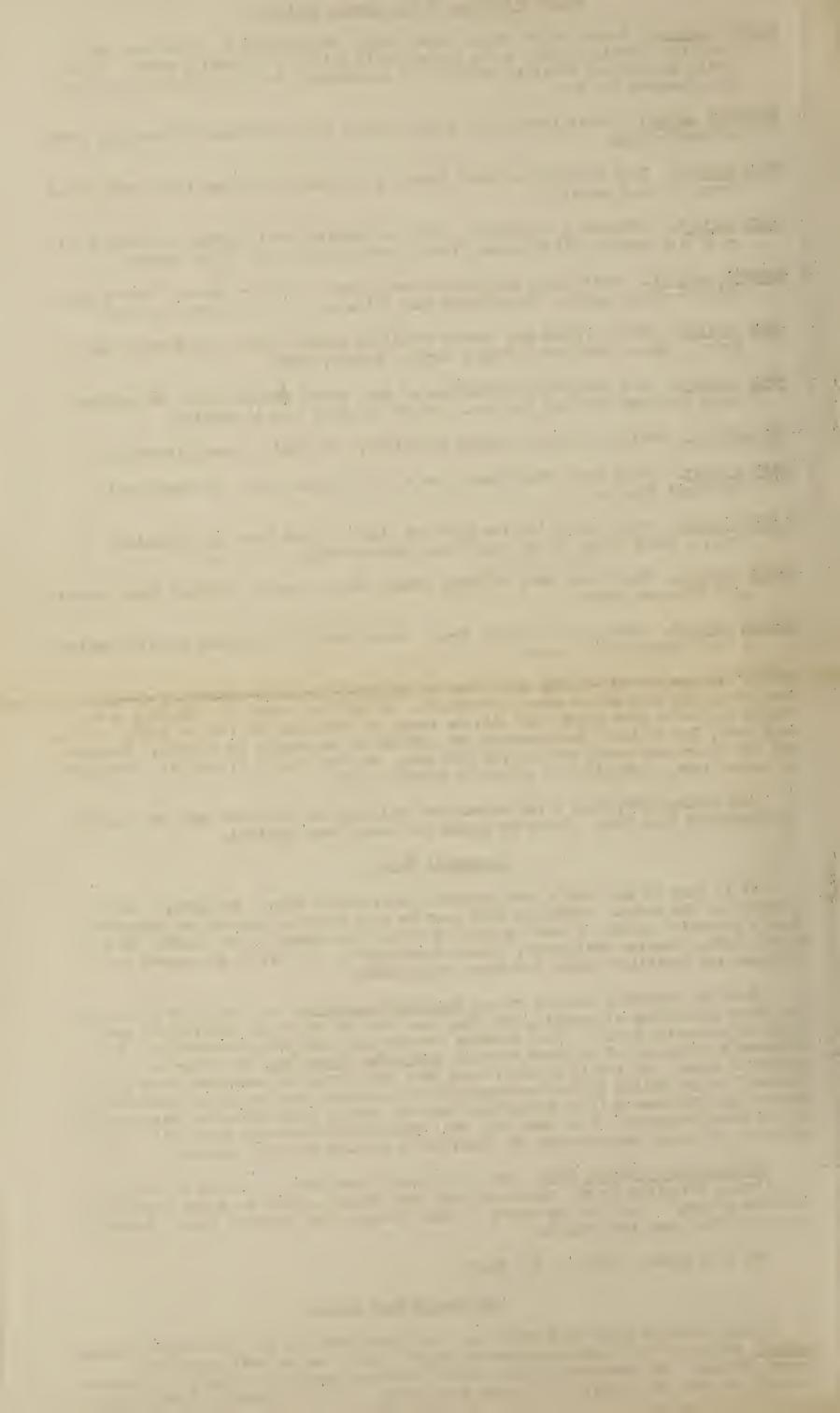
When the perennial Russian grass, <u>Agropyron elongatum</u>, is hybridized with wheat the first generation is sterile, but when bred back to wheat the result is a good wheat of perennial habit. These hybrids are not yet ready for distribution. But I obtained a few seeds of original species, <u>Agropyron elongatum</u>, the mother of perennial wheat. Of the 41 plants raised from this seed, two were sent last fall by request to the United States Department of Agriculture, and two to the University of Minnesota. The rest will be propagated here as rapidly as possible for distribution to the wheat breeders. I am sure they will make many hybrids and they will be only about six or seven years behind the Russians in getting the work started.

Shilka, East Siberia, Iris. One year plants from seed I gathered in 1934 upon steep stony hillsides in the Shilka region, East Siberia, upon the north fork of the Siberian railway. Too late in season to note flowers, but probably blue. Should be hardy far North and into Canada.

One year plants, price, 3 for \$1.00.

#### The Hansen Bush Cherry

I have selected since 1895 from over a million plants of the Sand Cherry, Prunus Besseyi, native of the western uplands of South Dakota, and am well along on the second million. The name Hansen Bush Cherry distinguishes this strain which improves steadily in size and quality each plant generation. One year plants, 10 for \$1.00.



## Smooth Stem Hardy Rose Stocks

The experiments in breeding 100% thornless hardy roses resulted in the fall of 1932 in finding a few such plants in twenty acres of seedlings in the State Rose Garden at Sioux Falls and here at State College, Brookings.

This work leaves a lot of rose seedlings with smooth stems, worthy of trial as stocks for budding. The midrib of the leaf is prickly, but this will not affect the budding. These seedlings vary in vigor of growth and the flowers are pink to white. Even if they do not prove to be valuable for budding, they have value as ornamental shrubs. The great crop of red rose-hips makes them highly ornamental for a long time in autumn and winter.

Plants, one year sprouts, Smooth Stem hardy roses, 5 for \$1.00.

### 100% Thornless Rose

Offered for the first time. This rose has 100% thornless stems, and the midrib of the leaf is entirely smooth. The flowers are single, pink, fragrant. The abundant red rose-hips in autumn and winter are noteworthy. Plant of sturdy upright habit. These plants are now being crossed with many large double-flowered varieties in other colors.

A few one-year sprouts can be spared, Price, each, \$2.00.

In its present condition it is a pleasing ornamental shrub that will endure \$40^\to 50^\to below zero Fahrenheit without protection, who which may be found useful by the rose-breeders in eliminating thorns.

# Siberian Crab Seedlings for Stocks

Stock orchards of the best Siberian crabs should be planted to provide an annual supply of stocks for budding. This would prevent root-killing, which is the cause of much loss in the apple orchards in the prairie Northwest. Price: One-year seedlings of the following: Alexis, Amur, Beauty, Dolgo, Olga, Yellow Siberian, \$5.00 per 100. Not less than 50 of one variety.

#### Named Apple Seedlings

One year-old seedlings can be spared of Anoka, the earliest bearing apple in the world; also of Maga apple (cross of McIntosh and Virginia crab); and of Giant wild crab, and Cathay crab. All described in South Dakota Bulletin 224. They are only for experimenters who know that the results will be uncertain. Price of seedlings, \$10.00 per 100.

Bird Cherry, Omsk, Siberia. Offered for the first time. This is Prunus Padus, as I found it native in the Omsk region of west Siberia. Closely related to our native Choke Cherry but with larger flowers and larger racemes. The fruit is of milder flavor, and is used for cooking in its native region. An interesting ornamental tree. One year trees, 2 for \$1.00.

Pink Semi Rose. Offered for the first time. A pink single-flower form of the Semi Rose (Rosa laxa, Retz.) from the dry steppes of Semipalatinsk, Siberia. I gathered original seed in 1913. (Most of the Semi Rose plants bear white flowers; see South Dakota Pulletin 240). A tall thorny shrub, to 8 feet, of upright habit, fruits bright red, flowering over a long period. Price, plants on own root, each, 50 cents.

The Hansen Alfalfa. Flowers white, seeds white. The first alfalfa with a trademark or distinguishing characteristic by which it may be known. In the 1932 spring list I gave this name to the Hansen Whiteseed Alfalfa of which a few plants were sent out in 1926 (see Bulletin 224). In the spring of 1931 I offered to send ten plants free to the first 300 applicants in South Dakota. Many more than 300 applications were received, so about 3,560 plants were distributed. I am trying to perfect the Hansen alfalfa as rapidly as possible. Female parent: the Yellow Flowered Alfalfa (Medicago falcata) from Omsk, Siberia. Male parent: the Cossack Alfalfa. Some strong transplanted three-year-old plants, 10 plants for \$1.00.

The Sibturk Alfalfa. This is a hybrid of the Siberian and the Turkestan alfalfas. The female parent is the Yellow Flowered Alfalfa (Medicago falcata), which I brought from Semipalatinsk, Siberia, in 1913. The male parent is the Select Turkestan Alfalfa, remarkable for its erect vigorous growth, and which I brought back from my 1906 tour. Sibturk is the name I chose for the Hansen Hybrid No. 1, described in Bulletin No. 224. This is a very hardy and productive variety, showing astonishing endurance in a field where it has been cut several years as a lawn. The seed is held tightly in the pod. Flowers variegated in many colors, with much yellow. Sibturk is an excellent combination of these two species. The name is condensed from the words Siberia and Turkestan. Seed per packet, 50 cents.

